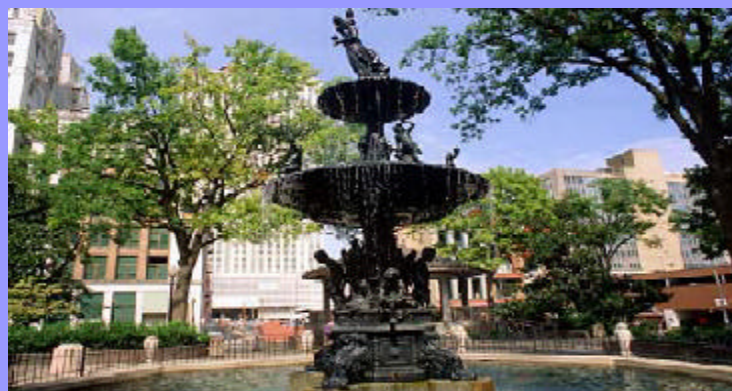# 2001 DVA

Pharmacy Conference Proceedings Document

May 15 - 20, 2001
Memphis Marriott
Downtown
Memphis, Tennessee

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ACPE Program numbers:

064-000-065-L04   -   Vision for VA Pharmacy Services in 2005 - 2.0 hours credit
064-000-066-L04   -   Reengineering VA Pharmacy Software - 7.0 hours credit
064-000-067-L04   -   Workforce Issues In VA Pharmacy Services - 8.0 hours credit
064-000-068-L04   -   Human Factor Engineering - Medical Errors - 8.0 hours credit
064-000-069-L04   -   The Future of VA Pharmacy Services Data Management - 3.0 hours credit
064-000-081-L04   -   VA Pharmacy Services Inventory Management - 2.0 hours credit
064-000-082-L04   -   The Future of VA Pharmacy Services - 2.0 hours credit

Educational Objectives:

At the conclusion of the conference, participants should be able to:

1. list three factors that may affect the future of health care delivery in VA medical centers;
2. identify three characteristics of future VA Pharmacy Services;
3. describe three shortcomings of current VA pharmacy software;
4. identify three characteristics of proposed VA pharmacy software;
5. suggest three futuristic applications for VA pharmacy software;
6. identify three characteristics of the future VA Pharmacy Service workforce;
7. suggest three ways in which pharmacists might become more productive through changes in staff support responsibilities;
8. identify three factors that will limit the expansion of VA Pharmacy Service workforce;
9. identify three of the most common medication errors;
10. describe a system in which medication errors are limited or eliminated;
11. list characteristics of a system in which adverse drug events are reported, collated, and reviewed;
12. describe two applications of appropriate data management;
13. identify characteristics of various systems for managing patient health data;
14. describe two benefits and two limitations of the Automated Inventory Management System;
15. describe how inventory and medication use data might be used to improve patient care in VA Pharmacy Services;
16. describe five probable future changes in VA Pharmacy Services; and
17. describe three ways pharmacists and pharmacy managers might position themselves to best adapt to probable future changes.

2001 DVA Pharmacy Conference

May 15 - 20, 2001
Memphis Marriott Downtown

Tuesday, May 15, 2001
Moderator: Dick R. Gourley, PharmD

11:00 AM - 5:00 PM	Registration
3:30 PM - 5:00 PM	Facilitator Orientation Quentin Srnka, PharmD, MBA UT College of Pharmacy
4:30 PM - 5:00 PM	Industry Briefing Dick R. Gourley, PharmD Dean, UT College of Pharmacy John E. Ogden, MS Department of Veterans Affairs
5:00 PM - 5:15 PM	Welcome Dick R. Gourley, PharmD
5:15 PM - 5:45 PM	Vision for VA Pharmacy Services in 2005 John E. Ogden, MS
5:45 PM - 6:30 PM	Reactor Panel CMOP: Tim Stroup, RPh, Leavenworth CMOP Clinician: Richard Brown, PharmD, Memphis VA Chief:: Lynnae Mahaney, MBA, RPh, Madison VA VISN: Ken Siehr, RPh, MPA, Milwaukee VA
6:30 PM - 6:45 PM	Question and Answer
6:45 PM - 7:15 PM	Overview of 2001 DVA Pharmacy Conference Dick R. Gourley, PharmD John E. Ogden, MS
7:30 PM	Reception and Dinner

7:00 AM - 8:00 AM	Breakfast
8:00 AM - 8:05 AM	General Announcements and Workgroup Charge

8:05 AM - 8:20 AM	Summarize Posters
	     Andy Muniz, MS
	     Department of Veterans Affairs

8:20 AM - 9:00 AM	Reengineering VA Pharmacy Software
	     Jeff Ramirez, PharmD
	     Department of Veterans Affairs

9:00 AM - 9:30 AM	Question and Answer
9:30 AM - 10:15 AM	Pharmacy Application Assessment Report Shannon Templeton, Birmingham VA
10:15 AM - 10:45 AM	Break
10:45 AM - 11:30 AM	Question and Answer
11:30 AM - 12:15 PM	How to Participate in a Workgroup Quentin Srnka, PharmD, MBA
12:15 PM - 12:30 PM	Workgroup Charge: Top 10 Business Needs - Action Plan Top 3 Quentin Srnka, PharmD, MBA
12:30 PM - 2:00 PM	Lunch
2:00 PM - 4:00 PM	Work Groups plus Break

Group	Facilitator
Group 1:	Paul Carnes, Lebanon VA
Group 2:	Joe Choi. Wichita VA
Group 3:	Rich Flores, Bronx VA
Group 4:	Valerie Halverson, Cheyenne VA
Group 5:	Emmett Hammond, Cincinnati VA
Group 6:	Russ Montgomery, Murfreesboro VA
Group 7:	Ted Pudhorodsky, Buffalo VA
Group 8:	Earl Rogers, Richmond VA
Group 9:	Sue Ulrich, Kansas City VA
Group 10:	Fred Soetje, Baltimore VA

4:00 PM - 5:00 PM	Work Group Presentations
6:00 PM - 7:30 PM	Dinner - Work Group representatives meet 6:00 - 8:00

7:00 AM - 8:00 AM	Breakfast
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10:15 AM - 10:45 AM	Break
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11:30 AM - 11:50 AM	Reactor Panel
	    Lydia Borysiuk, West Haven VA
	    Elizabeth Lanier
	    Paul Burciaga, Technician, Palo Alto VA

11:50 AM - 12:20 PM	Question and Answer
12:20 PM - 12:30 PM	Repeat Charge to Workgroups Quentin Srnka, PharmD, MBA
12:30 PM - 2:00 PM	Lunch
2:00 PM - 4:00 PM	Work Groups plus Break
4:00 PM - 5:00 PM	Work Group Presentations
6:00 PM - 7:30 PM	Dinner - Work Group representatives meet 6:00 - 8:00
6:45 PM	AAA Baseball: Memphis Redbirds vs New Orleans Zephyrs (optional)

Friday, May 18, 2001
Moderator: John Ogden, MS

7:00 AM - 8:00 AM	Breakfast
8:00 AM - 8:15 AM	Announcements and Charge to Workgroups: What do you need in an ADE Reporting System? (Top 5) and Apply Human Engineering Techniques in 5 Places in your Workplace (Top 5)
8:15 AM - 9:15 AM	Human Factor Engineering (Medical Errors) 　　John Gosbee, MD, MS
9:15 AM - 9:45 AM	Question and Answer
9:45 AM - 10:05 AM	NextRx 　　Jim Clarke, RPh, Durham VA
10:05 AM - 10:15 AM	Question and Answer
10:15 AM - 10:45 AM	Break
10:45 AM - 11:15 AM	VISN 8 Reporting Medication Error Process 　　Roy Coakley, RPh, MS, West Palm Beach VA
11:15 AM - 11:30 AM	Question and Answer
11:30 AM - 12:00 PM	Adverse Drug Events 　　Clarke Sawin, MD
12:00 PM - 12:20 PM	Question and Answer
12:20 PM - 12:30 PM	Charges to Workgroups: What do you need in an ADE Reporting System? (Top 5) and Apply Human Engineering Techniques in 5 Places in your Workplace (Top 5)
12:30 PM - 2:00 PM	Lunch
2:00 PM - 4:00 PM	Work Groups plus Break
4:00 PM - 5:00 PM	Work Group Presentations
6:00 PM - 7:30 PM	Dinner - Work Group representatives meet 6:00 - 8:00
6:45 PM	Memphis in May Bar-B-Que Contest (optional)

Saturday, May 19, 2001
Moderator: David Solomon, PharmD

7:00 AM - 8:00 AM	Breakfast
8:00 AM - 8:15 AM	ProClarity and Pharmacy Data Management: A Primer
	Dance Smith, PharmD, Seattle VA
8:15 AM - 8:45 AM	ProClarity Demonstration
	Dance Smith, PharmD Seattle VA
	Mike Wrobel, Veteran Affairs
8:45 AM - 9:15 AM	Question and Answer
9:15 AM - 9:45 AM	VISN 8 Data Mart
	Kim Mowry, PharmD, Tampa VA
9:45 AM - 10:00 AM	Question and Answer
10:00 AM - 10:30 AM	Break
10:30 AM - 10:45 AM	Data Management
	George Knight, RPh, Syracuse VA
10:45 AM - 11:00 AM	Data Management
	Harlan Scheibe, RPh, Fargo VA
11:00 AM - 11:30 AM	Question and Answer
11:30 AM - 1:00 PM	Lunch
1:00 PM - 2:00 PM	Optional Sessions:
	Amerisource: Automated Inventory Management System
	Don Lees, Hines VA
6:00 PM - 7:30 PM	Dinner

Sunday, May 20, 2001
Moderator: Dick R. Gourley, PharmD

7:00 AM - 8:00 AM	Breakfast
8:00 AM - 9:30 AM	Reports of Work Group Representatives Meetings
9:30 AM - 10:00 AM	Announcements and Conference Evaluation
10:00 AM	Adjournment

Program Steering Committee

Dick R. Gourley, PharmD, Professor and Dean,
UT College of Pharmacy

Andrew Muniz, MS, Deputy Chief Consultant, PBM

John E. Ogden, MS, Chief Consultant, PBM

David K. Solomon, PharmD, Memphis VAMC

Quentin Srnka, PharmD, MBA, Associate Professor,
UT College of Pharmacy

Insert Letter from the Dean

Tuesday, May 15, 2001
Moderator: Dick R. Gourley, PharmD

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	Dean, UT College of Pharmacy
	John E. Ogden, MS
	Department of Veterans Affairs
5:00 PM - 5:15 PM	Welcome
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	CMOP: Tim Stroup, RPh, Leavenworth CMOP
	Clinician: Richard Brown, PharmD, Memphis VA
	Chief:: Lynnae Mahaney, MBA, RPh, Madison VA
	VISN: Ken Siehr, RPh, MPA, Milwaukee VA
6:30 PM - 6:45 PM	Question and Answer
6:45 PM - 7:15 PM	Overview of 2001 DVA Pharmacy Conference
	Dick R. Gourley, PharmD
	John E. Ogden, MS
7:30 PM	Reception and Dinner

The Importance of Being Unimportant – FY2002 – FY2006

John E. Ogden, M.S., FASHP
Chief Consultant for Pharmacy Benefits Management
Department of Veterans Affairs

The Veterans Health Administration's (VHA) "Six for 2006" goals, i.e. quality first, the provision of easy access to medical care, restoration of patient function, exceed patient expectations, efficiency and building health communities, are the foundation on which to build VA pharmacy services in the early part of the 21st Century. The challenge is to create value and demonstrate value in VA healthcare. The organizing principles and goals to be considered in creating and demonstrating value are that "Vision drives direction, measures drive success". VA Pharmacy's response is multifaceted; it includes re-engineering pharmacy processes, continued emphasis on efficiency and effectiveness, and addressing workforce issues of pharmacy technicians and pharmacists. Opportunities for the future include collaborative practice, complimentary and alternative medicine, Medicare drug benefit, collaborative activities with the Department of Defense, greater role in emergency preparedness and increasing patient satisfaction through reducing the waiting time to receive service.

Vision for VA Pharmacy Services in 2005 - Reactor Panel

Tim Stroup, National CMOP Director
Leavenworth, Kansas

From my perspective, I think we need to underscore and take into account the continued evolution of technology in the coming five (5) years. At the same time, we cannot over-emphasize the "soft-tissue" issues of technology. People make new technologies work and be efficient. All too often we can become too focused on hardware but without vested, experienced, talented and committed staff, any improvements in efficiency or quality associated with new technology will not be realized. One of the first lessons learned in the CMOP program was that it was and is the "people" that drive the automated technologies to excellence, not the other way around.

According to a recent USA Today poll, the top concern of CEOs in the next five years is the "recruitment and retention of talent". The business community in recent decades has emphasized short-term planning and short-term goal accomplishment. As such, compensation for much of America has become short-term oriented, something that government has yet to fully embrace. One of the major challenges in the coming years is the reformation of the compensation structure government-wide to build incentives and respond to the short-term goal orientation of younger generation of workers.

Secondly, I would like to emphasize the issue of re-engineering processes. The processes for the application and provision of care by VA in future must be simple, must make sense, must be user friendly for both staff and patients, and result in timely, quality, cost-effective care. The barriers of structure and organizational process of the past must be streamlined. The digital divide for both staff and patients must be taken into account and crossed as ever improving technologies offer incredible opportunities in everyday life.

In reviewing and planning for the re-engineering of processes in your local operations, I recommend that you ask the question "why" and ask it often, build towards an answer that is as easy as possible and then make that answer "fun." Don't be afraid to ask "why" we are doing a given process and my experience has been that you have to ask "why" several times often up to five times to get to the real issues at hand. Some would call that an RCA or root cause analysis but whatever we call it, we need to be able to answer the "why" questions with answers that make sense to both employees and patients. After that we build those answers into procedures that are fun for patients, fun for staff and fun for the organization. Everyone likes to have fun but for some reason fun is not typically positively associated with work or political process but there in lays the challenge and the result can be creative thinking.

Recently, I attended a training session on "creative" thinking and an example cited was a medical center in Florida that had a problem with discharge summary delinquencies and the resulting delays in claims processing. These delays cost the organization in reimbursement and put the whole organization at risk. A process review found that the problem was that physicians were not signing the final summary. The answer was moving the completed summaries to physician's lounge daily and providing 5 animal crackers to the physician for every discharge summary signed. Delinquent summaries disappeared, claims filing became current and the organization was financially sound plus it was "fun."

Lastly, I want to encourage everyone to "dream." All too often the details and activities of daily life can become overwhelming and the daily goals can become simply making it through the day. Business is typically about practicality and merit driven and in those organizations, dreams typically are viewed as having no or limited value but that is changing. I believe dreams do have merit and that VA must embrace the creativity that surrounds dreams for it to be a successful organization in future. On my wall at work I have one of those "success" posters that you see around. The poster is entitled "Excellence" and you may have seen it. It simply states that "Excellence is the result of caring more than others think is wise; risking more than others think is safe. Dreaming more than others think is practical and expecting more than others think is possible."   I wholeheartedly believe this sentiment and would ask only that each of you in the coming years to consider the possibilities.

Vision for 2005 - Reactor Panel

Richard Brown, PharmD, BCPS, FASHP
Clinical Pharmacist, Memphis, Tennessee VAMC

In response to John Ogden's "on target" opening remarks, I would like to relate a story regarding one of our patient's perception of Pharmacy Service's involvement in their care. Recently, a patient in the bed next to a 42 YO individual, whom I was counseling prior to discharge, overheard my conversation relating the importance of his medication in reducing the risk of him having a second MI and the contribution of his current lifestyle to his premature coronary artery disease. As I was leaving the room, this patient in the adjoining bed got my attention and commented that he had not heard anyone at the VA talk to a patient in such a fashion in his 25 years of being cared for at VA hospitals. Initially, I thought I had offended him but he went on to say, "…if someone would only talk to me that way, I would take my drugs…we all need to hear this…who are you anyway and are you going to explain my medications and disease before I go home?" I assured him a pharmacist would discuss his unique medications as well prior to him leaving. Although admittedly labor intensive, I believe our patients deserve this personalized service from Pharmacy. We should strive to make this a "core" service we provide rather than something that we will do if time permits. Every patient who is discharged from one of our hospitals needs to know the name of a pharmacist and how to contact that pharmacist should the need arise. Bold and outside the traditional practice paradigm box I imagine, but worthy of pursuit as a professional goal for each of us.

I think this direct "eyeball to eyeball" bedside patient education, or pharmaceutical care, if you desire, is *the* vital part of pharmacy's responsibility to our patients. Those of us in leadership positions within our Service must create an environment for the practice of direct patient care activities. The colleges of pharmacy are graduating brilliant young pharmacists who have been exposed to this type of practice in their training and they expect, even demand, to find these types of roles when they seek employment. If the

VA is to attract and retain these young pharmacists, we must give them employment opportunities in which to practice as they have been taught. The patient education and understanding needed to improve the compliance necessary to achieve expected outcomes from the expensive pharmaceuticals we use is worthy of all our efforts in this regard.

We must see beyond acquisition costs of pharmaceuticals in management of local and national formularies. Ten or so years ago, the Memphis VA prided itself in containing the costs of lovastatin in its first years of usage in cholesterol management. We were proud of the controls we had placed on its prescribing that resulted in only $50,000 in annual usage. How blind and uninformed we were. The mortality and morbidity reduction associated with the statins is well established and the attitude today is generally one of aggressive use with the Veteran population. LMW heparin offers a similar example today. Although more expensive in acquisition cost, the superior efficacy in select situations such as unstable angina and non Q-wave MI, coupled with lack of monitoring and simplicity of use reduces missed or delay doses. These value-added advantages of a pharmaceutical must be incorporated in the formulary decision process. As an involved Service in this process, our primary patient advocacy role should be to procure overall *best product* which may be contrary to a philosophy of overall *best price*.

Finally, we must offer training in biotechnology. The idea of genetically engineered drugs which target specific polymorphism in a patient's gene sequence is essentially a reality. Our schools must offer this training to our students and those of us in practice must gear our minds to an understanding of the complexities of this approach to disease management. Thank you for the opportunity to speak at this gathering of outstanding leaders in VA Pharmacy.

Vision for VA Pharmacy Services in 2005 - Reactor Panel

Lynnae Mahaney, RPh, MBA, FASHP
Chief, Pharmacy Services, William S. Middleton Memorial VA Hospital, Madison, Wisconsin

The VHA is a strong, integrated health system especially when compared to other systems across the country. And VA Pharmacy has an excellent opportunity to positively impact patient outcomes. We have begun to re-engineer our processes through interdisciplinary involvement e.g., CPRS/BCMA, medication safety and merging our service goals with VHA leadership goals.

We are working together within VISNs to share our expertise and learn from one another; for example, VISN 12 has developed RPh staff development modules available on the intranet.

There are only 24 hours in a day so we must focus our energies where we can make a difference; we have great accessibility to data for decision making and providing information to our providers and administration. Chiefs and other managers can then direct their attention to creating an environment which attracts pharmacists AND mentor that staff as a means of succession planning.

If we stand outside and look into VA Pharmacy box, we will see great potential.

Reactor Panel to Presentation: Vision for VA Pharmacy Services in 2005

Kenneth Siehr RPh., MPA
Clement J. Zablocki Veterans Affairs Medical Center, Milwaukee, Wisconsin

The cost of providing the Pharmacy Benefit in VA is steadily increasing. It is gobbling up an ever increasing percentage of the health care dollars available to VA. We are taking care of more patients. Each patient is receiving more prescriptions and each prescription has a higher drug cost as we move to newer therapies. I was asked to take the VISN view of the future of pharmacy. To do that I will try to put myself in the chair of a VISN Director.

As a VISN Director, in VISN 12 for example, I know that to provide the Pharmacy Benefit we will spend about 130 million dollars in Fiscal Year 2001. This budget is bigger than the facility budgets at 4 of the VISN's Medical Centers. As VISN Director I need to be sure that medications are being given to those patients who need them; that the right drug, is given to the right patient, at the right time; that patients have a short waiting time and the cost of distributing the medications is low; and that overutilization and cost effectiveness are considered. To do that, I need one person, or a small group of people I can go to who can managing all these elements and brief me on how the VISN is doing with regard to the Pharmacy Benefit.

There are currently 4 VISN organizational models in Pharmacy.

1) A Pharmacist has direct line authority over the pharmacies and pharmacists in the VISN. He/She is also the Pharmacy Benefit Manager.
2) The VISN has identified a full time Pharmacist to be the Pharmacy Benefit Manager. This is a full time job with no other duties.
3) The Pharmacy Benefit is managed by the VISN P&T Committee or another similar group and lead pharmacist(s) have been identified. These are collateral duties.
4) A loose organizational structure of which the VISN P&T Committee is a part.

To meet the goals the VISN Director has that I spoke about before, I think we will see organizational structures moving toward one person, or a small group of people being charged with managing the Pharmacy Benefit in a VISN. The manager(s) may or may not have line authority.

What are some other reasons to move to this type of organizational structure.

1) There is a need to acquire and analyze data, turning it into information. Performance type measures should be identified and performance against those measures tracked and trended.
2) There is a need for us to learn from each other. Best practices need to be identified, shared and followed up on to make sure they are implemented.
3) There is a need to aggregate data to identify trends related to improving patient safety. This applies to the areas of medication errors, adverse drug reactions and pharmacist intervention.

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	Andy Muniz, MS
	Department of Veterans Affairs
8:20 AM - 9:00 AM	Reengineering VA Pharmacy Software
	Jeff Ramirez, PharmD
	Department of Veterans Affairs
9:00 AM - 9:30 AM	Question and Answer
9:30 AM - 10:15 AM	Pharmacy Application Assessment Report
	Shannon Templeton, Birmingham VA
10:15 AM - 10:45 AM	Break
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4:00 PM - 5:00 PM	Work Group Presentations
6:00 PM - 7:30 PM	Dinner - Work Group representatives meet 6:00 - 8:00

Pharmacy Application Assessment Project

Shannon S. Templeton, R.Ph., Project Manager System Design and Development, DVA Office of Information, Birmingham, Alabama

VA Pharmacy is continuing it effort to move from a focus on dispensing and labeling into a pharmaco-therapy based management system that integrated a clinical focus on the patient and supports sound business practices. The goal is to maximize patient safety and optimize clinical outcomes while efficiently managing human and non-human resources.

A part of this effort focuses on the VistA pharmacy suite of software applications. The pharmacy applications are among the oldest in the VistA application suite. In order to plan for these applications to evolve in meeting the future needs of Veterans Health Administration, an analysis of the pharmacy systems will be completed. The analysis will assess the current state of the pharmacy applications; gain an understanding of future requirements, identify the gaps between current state and future needs. A report of findings that will serve as a framework for strategic decisions on the pharmacy systems will be prepared.

To accomplish this objective, System Design & Development Clinical Ancillary staff will be assisted by a contractor (First Consulting Group) who is knowledgeable in performing these types of system assessments. A Focus group representing the various stakeholders of the pharmacy suite of applications will be formed. This group will include medical center, VISN, and program office representation. The group will work with the assessment team to identify the current components and functionality, examine industry best practices and functionality available in Commercial Off The Shelf (COTS) pharmacy applications, identify future requirements, perform the gap analysis, and prioritize the needs. A report of findings outlining a strategic framework for pharmacy systems future evolution will be the outcome. The pharmacy applications are among the oldest in the VistA application suite. In order to plan for these applications to evolve in meeting the future needs of Veterans Health Administration, an analysis of the pharmacy systems will be completed. The analysis will assess the current state of the pharmacy applications; gain an understanding of future requirements, identify the gaps between current state and future needs. A report of findings that will serve as a framework for strategic decisions on the pharmacy systems will be prepared.

Upon completion of the analysis multi-disciplinary workgroups will discuss the re-engineering effort, develop a plan to bridge the gap between the current state and the future state and recommend the best strategy for modernizing the systems. The strategy may be a combination of commercial products and re-engineered VistA system. It may be a total replacement with commercial products. Or, it may be a re-engineered system built by in-house development. The analysis by the consultant group will be complete on June 15, 2001 when the final report of findings is presented to Pharmacy Benefits Management and System Design and Development.

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Pharmacy Workforce Plan - Reactor Panel

Lydia Borysiuk
West Haven, Connecticut VA Medical Center

When Tim Stroup spoke to us Tuesday, he encouraged us to dream. Well, I can't dream because I can't sleep. Listening to Bernie's presentation has allowed me to come to the conclusion that I can't sleep because of what he refers to as the "LID" factor (Less "real" pharmacist salary dollars available; Increased workload with more complex work; Decreased growth rate of available pharmacists). All kidding aside, what has been presented during this conference and some of the things we discussed at the workforce planning meetings are timely issues for me as a chief. I think many of us here can relate to the challenges we are faced with on a daily basis, namely, how to get the work done with the people we have and how to attract new staff to the VA when the job market is highly competitive. What can we say and do that will make prospective employees even consider employment in the VA?

For me, it's very important to retain the technicians that I have on staff, and I agree that we need to create a career ladder for technicians. Our technicians are among the best and once they reach the GS-6 level, the only place they can look to move up the ladder is out of the Pharmacy. If we are going to rely on technicians to perform more of the functions traditionally carried out by a pharmacist, then we need to be proactive and address this issue very quickly. Without ensuring a stable and competent technician workforce, I don't think we can get other things done. Bernie mentioned the workgroup that was put together to address the rewriting of technician position descriptions. I have to give a lot of the credit to Randy Coombs because he really took the ball and ran with it. He put a lot of time and effort into getting the position descriptions rewritten.

When I consider what we can do to recruit and retain pharmacists, we heard what has been presented, we all have our own opinions as to what can be done and how we should prioritize our actions, but I also look to see what we can do right now. What are the things we can offer people that perhaps the private sector can't offer? Maybe our salaries aren't as competitive. That's true. I don't think we in Connecticut are any different from any other VA facility. Some examples of things we mention to our potential recruits include: we provide free parking (our neighboring hospitals have paid parking); we have Monday through Friday schedules depending on the position you are hired for; we provide onsite continuing education (onsite CE is not offered by the drug stores); we have electronic patient records. The VA is way ahead of the curve when it comes to the electronic patient record – the extent to which the electronic patient record is accessible to healthcare providers surpasses anything seen in the private sector.

I agree with what Elizabeth said when it comes to working with the Human Resources staff. Just as much as it is important for us to develop good working relationships with physicians and nurses, we really need to work with Human Resources, talk with them and help them understand the issues we are faced with. Sometimes the way we address and approach issues makes a big difference. For example, when we conducted salary surveys, Human Resources used the information that was available to them. In the state of Connecticut, the Connecticut Hospital Association serves as a repository for all salary information for hospital healthcare related positions, including pharmacists. While this information provides salary ranges, it doesn't give you the journeyman level salary. What we (Pharmacy) started doing at our facility five years

ago is ask anyone coming in for an interview to provide us with a salary history and more specifically, we've asked them to bring in a copy of their last paycheck stub. This information has helped us get the attention of our Human Resources associates and sensitized them to what we are really up against. At first we were afraid to ask for salary histories because we thought it wasn't common practice in the private sector to have somebody bring their paycheck stub to an interview. However, this has helped us to prove the point and it's helped us recruit some of the best people. Our strategy has also been to wait until we find the right people rather than hire warm bodies. Again, we had five years worth of salary data and in the last five years we had two salary increases and we're working on our third one.

The other thing that we try to do is to really listen to what our staff pharmacists are telling us. Our greatest turn over is in the Outpatient Pharmacy. What our pharmacists are telling us is that they want to have a little bit of time away from the distributive functions to give them an opportunity to spend time with the patients in the clinic setting. In response to this, we are trying to set up a schedule that will enable the pharmacists to work one day a week in Pharmacy clinic to provide patients medication counseling, inhaler teaching, blood glucose monitoring, and other related activities. This is something the staff considers to be a perk and as good pharmacy leaders, we have a responsibility to try to make this happen. We also know from literature that we should expect pharmacy staff to turnover every three years. We're trying to plan for this and I don't know if I'll be successful, but I'm going to ask our Resources Committee for one extra position to help accommodate the constant turnover in staff. (I can't wait until we can hire our Pharmacy Practice Residents!)

One last thing I wanted to say is that I agree with what Bernie said, namely, that we need to do a better job in collecting data with regards to the FTE that are available to us and the vacancies that are out there. Numbers do tell a story and folks who are in higher level positions certainly want to have some kind of data they can base their decisions on. It was surprising for me to see that from 1997 to 2001, our total FTE went up by only 4.1%. This figure includes the addition of clinical positions, not just FTE related to distributive functions. The FTE required to do the work that we've been doing in those last four years was only 5.6% more FTE according to the information Bernie was able to access. I find it a little bit hard to believe that the only way we can determine how many more FTE are required is solely based on overtime worked. It just doesn't make sense that overtime worked is the only measure we can use to determine how much more staffing we need. Staff work comp time and this is not captured in the overtime numbers. We have to develop a staffing model that everyone can use to determine when additional positions are justified.

Pharmacy Workforce Plan - Reactor Panel

Paul Burciaga, Technician
Palo Alto, California VAMC

Technicians would like to see their role within the field of pharmacy enhanced. Some of the ways to do that are:

1.   Increase technician attendance at conferences by targeting some of the topics on what the role of technicians is and what that role could become.

2.   Revise job descriptions to include more responsibilities that would support the conversion of technician positions to Hybrid Title 38.

3.   Adjust salaries or grade levels to correspond to broader responsibilities.

4.   Create a ladder of advancement and upward mobility so that promotions and career advancement are more possible.

5.   Utilize the technicians to assume more responsibilities for technical projects, such as BCMA implementation.

Overall I enjoyed the discussions among the managers and clinicians even though many of the topics were over my head. Speaking for the technicians in general, we are interested in assuming more responsibilities so that the pharmacists can pursue the professional topics discussed at the conference.

And by the way. I have the best boss ever…Thanks to him I was able to attend this conference.

Time	Event
7:00 AM - 8:00 AM	Breakfast
8:00 AM - 8:15 AM	Announcements and Charge to Workgroups: What do you need in an ADE Reporting System? (Top 5) and Apply Human Engineering Techniques in 5 Places in your Workplace (Top 5)
8:15 AM - 9:15 AM	Human Factor Engineering (Medical Errors) John Gosbee, MD, MS
9:15 AM - 9:45 AM	Question and Answer
9:45 AM - 10:05 AM	NextRx Jim Clarke, RPh, Durham VA
10:05 AM - 10:15 AM	Question and Answer
10:15 AM - 10:45 AM	Break
10:45 AM - 11:15 AM	VISN 8 Reporting Medication Error Process Roy Coakley, RPh, MS, West Palm Beach VA
11:15 AM - 11:30 AM	Question and Answer
11:30 AM - 12:00 PM	Adverse Drug Events Clarke Sawin, MD
12:00 PM - 12:20 PM	Question and Answer
12:20 PM - 12:30 PM	Charges to Workgroups: What do you need in an ADE Reporting System? (Top 5) and Apply Human Engineering Techniques in 5 Places in your Workplace (Top 5)
12:30 PM - 2:00 PM	Lunch
2:00 PM - 4:00 PM	Work Groups plus Break
4:00 PM - 5:00 PM	Work Group Presentations
6:00 PM - 7:30 PM	Dinner - Work Group representatives meet 6:00 - 8:00
6:45 PM	Memphis in May Bar-B-Que Contest (optional)

Application of Human Factors Engineering to Health Care

John Gosbee, M.D.

Many professional societies, including the American Society for Health-System Pharmacists, are recommending more training in "systems thinking" to address patient safety. Human factors engineering (HFE) is one discipline that offers both a conceptual framework to support systems thinking; as well as methodologies to address many patient safety issues. Specifically, HFE methods can help with root cause analysis when systems fail - especially medical devices and healthcare software. HFE methods, especially usability testing, can help an organization with procurement decisions. This presentation provides an overview of HFE, some pertinent methodologies, who is using these methods, and practical guidance for pharmacy personnel to "get started". Demonstrations and case studies are used to emphasize and illustrate key points, such as "learned intuition". Learned intuition is the cognitive phenomena that provides two tendencies once we really learn something "simple": one, we can never remember not knowing; and, two, we can not imagine anyone else not knowing.

NextRx Beta Test Update

Jim Clark, Chief, Pharmacy Services
Durham, North Carolina VAMC

The Department of Veterans Affairs has made the commitment to develop a system of safe medication delivery and administration. Presently, the two major components of this system are the computerized patient record system (CPRS) and the Bar Code Medication Administration (BCMA) system. Unfortunately, these two systems still rely on a manual method of unit dose medication selection in the pharmacy. The Durham VAMC pharmacy service explored all commercially available automated inpatient medication dispensing systems for use with BCMA and CPRS but found that none were fast enough or accurate enough to meet current or future needs.

However, it was found that the NextRx Company of Bothel, Washington has manufactured an automated, inpatient medication system which works with BCMA and CPRS. After preliminary evaluation, a partnership agreement was reached between the NextRx Company and the Durham VAMC to evaluate this system as an integrated part of the BCMA/CPRS initiative.

Preliminary results suggest that the accuracy and speed of the NextRx system are as promised by the company. Presently the system is functional on 140 inpatient beds. The average unit dose medication cart fill time is 6 to 7 minutes. The system, utilizing an HL-7 interface, is capturing 99.5% of all CPRS orders with an overall accuracy rate of 99.97%. Utilization of the NextRx system on all non-intensive care beds is scheduled to be completed by July of 2001.

The specifics of this installation are described and current data relative to the speed and accuracy of the NextRx system are discussed.

A VISN Approach To Setting A Strategic Direction For Medication Error By Improving Processes And Utilizing Facility Best Practices

Roy W. Coakley, MS, West Palm Beach, Florida VAMC
Giselle C. Rivera, PharmD, Puerto Rico VAMC

Medication errors have been demonstrated to have a significant impact on patient morbidity and mortality. Individual facilities generally have different approaches for reporting errors, collating reported errors and using those errors to improve processes to reduce or eliminate future medication errors. In addition, organizations vary in establishing cultures to improve error reporting.

Within VISN 8, each facility had a different process for medication errors, used different reporting forms, had different definitions and had varying success in capturing errors. Generally the number of medication error reports was small and much lower than would be expected based on the medication error literature.

In May, 2000 a meeting in Tampa was held on setting a strategic direction within the VISN for reducing medication errors. Participants included Pharmacy staff from all facilities, Risk Managers, Quality Managers, and Nursing staff representatives for VISN 8 as well as representatives from the Patient Safety Division of the National VA Patient Safety Center of Injury (PSC) at Tampa.

Recommendations made during this meeting as well as the formation of work groups assigned specific tasks have led to significant improvement of medication error processes within VISN 8. (The new processes developed focus on a culture of reporting and process improvement verses blame.)

A method to dramatically increase medication error reporting that was developed at the Puerto Rico VAMC was adopted for use by the entire VISN. In addition, one medication error form was established for use at all VISN 8 facilities. Medication error reporting is rewarded and encouraged under the new processes. Definitions have been standardized within the VISN and a VISN interdisciplinary medication safety committee has been created. This VISN committee will ensure standardization of forms and definitions as well as communicate best practices on medication error reduction/prevention as well as review all VISN medication error reports. The VISN Medication Safety Committee is also overseeing the creation of an electronic medication error form that interfaces with the PBM Data Mart to create a medication error database.

7:00 AM - 8:00 AM	Breakfast
8:00 AM - 8:15 AM	ProClarity and Pharmacy Data Management: A Primer Dance Smith, PharmD, Seattle VA
8:15 AM - 8:45 AM	ProClarity Demonstration Dance Smith, PharmD Seattle VA Mike Wrobel, Veteran Affairs
8:45 AM - 9:15 AM	Question and Answer
9:15 AM - 9:45 AM	VISN 8 Data Mart Kim Mowry, PharmD, Tampa VA
9:45 AM - 10:00 AM	Question and Answer
10:00 AM - 10:30 AM	Break
10:30 AM - 10:45 AM	Data Management George Knight, RPh, Syracuse VA
10:45 AM - 11:00 AM	Data Management Harlan Scheibe, RPh, Fargo VA
11:00 AM - 11:30 AM	Question and Answer
11:30 AM - 1:00 PM	Lunch
1:00 PM - 2:00 PM	Optional Sessions: Amerisource: Automated Inventory Management System Don Lees, Hines VA
6:00 PM - 7:30 PM	Dinner

VISN Drug Data Mining using Knosys ProClarity Software

Dance Smith, PharmD
Puget Sound, Oregon

Knosys ProClarity Software is a commercially available software product that provides an intuitive, Windows-based graphic interface to OLAP Cubes. ProClarity allows a user without extensive specialized training to quickly generate a number of useful drug utilization reports. Immediate visual feedback allows the user to easily identify potentially significant patterns. These patterns can be further investigated by modifying query parameters and/or report format. Reports can demonstrate usage trends over time and drug utilization differences between VISN facilities. These reports can be used to quantify the effects of VISN Formulary decisions, assess uniform access to pharmaceutical care across facilities, and identify differences in prescribing patterns.

Outcomes from a Pharmacy Data Mart
Ok, So Now You Got a Data Mart! Now What?

Kim A. Mowrey, Pharm. D., Assistant Chief of Pharmacy for Clinical and Educational Programs, James A Haley VA Tampa, Florida

Outcomes secondary to utilization of a data mart in VISN 8 will be presented. The initial discussion will center on how VISN 8 developed a Data Mart and how this tool was used to manage outcomes and directives of the VISN P&T committee. Defined will be the differences between a data mart and a data warehouse. How data is captured, scrubbed, validated and entered into a SQL server. Discussed will be the VISN 8 PBM interventions such as how the data mart was used to measure performance with tablet splitting initiates, limiting home blood glucose strip monitoring. Data will be presented on how the Data Mart can be used monitor select drugs market penetration, and also be used to counter detail drug company sales representatives. Since its creation and utilization by VISN 8 PBM management, the data mart has been responsible for 25,000,000 dollars in savings while at the same time monitoring the performance and the effect of P&T decision on patient outcomes.

VISN-2 Pharmacy Data Management

George Knight, RPh, Network Pharmacy Data Manager
VISN-2, Syracuse, New York

The presentation outlined VISN-2 management structure and then focused on pharmacy's place within that Care Line Structure. The role of this Pharmacy Advisory Board, and the functions of the Data Manager were discussed. Various data products were described and presented to show what information was being provided to the individual Care Lines. This encompassed workload, cost, and provider profiling. The FY2000 Utilization Summit was discussed in terms of its effectiveness, and how it contributed to the development of the Risk Sharing Model developed for FY2001. The interim outcome arrived at for 6 months of FY2001 was the ability to straight-line expenditures, regardless of the continued increase in number of equivalent fills processed. This was accomplished through changes in the mix of drugs being prescribed, such that the increase in average cost was not only slowed, but reversed.

AIM Inventory Management

Don Lees, RPh
Pharmacy Benefits Management

The AmeriSource Inventory Management Software (AIM's) is the national approved inventory management software for VA Pharmacy. The system is based on the ABC inventory analysis method. For the VA the "A" items are defined as products that account of 70% of total dollars. The "B" items are 20% of total dollars. The C items are 10% of total dollars. There are two reports that will be monitored at the national level. The first is the Theoretical Turns Report. This will be run quarterly and sent to the PBM at Hines. The second report is the yearly inventory of the facilities "A" items. The goal of this process is to have a rational inventory system at each facility. This information can also be gathered nationally and facilities can be compared to determine the effectiveness of their inventory processes.

2001 DVA Pharmacy Conference Combined Workgroup Reports

May 16 - 19, 2001

1.   Standardize hardware, and software design across the system to realize the best possible product(s).

Characteristics: 1.   Ease of use

2.   Self Learning

3.   Tutorial Support

4.   Updateable wide integration

5.   Universal access

6.   System-wide integration

7.   Ability for third party interface

How: 1.   Ongoing evaluation of information technology advancements

2.   Establish pharmacy information technology group, lead by appointed HQ technology officer, and comprised of a pharmacy member from each network

3.   Workgroup meets/communicates/interacts with the field, in a continuous organized manner

Who: Chief, PBM Consultant's designee; Pharmacist network designee

When: Within six months

2.   Failproof inpatient and outpatient dispensing system

Characteristics: 1.   Automatic back-up in event of system or utility failure

2.   BCMA type technology to use

a.   In event of drug recall

b.   For workload assessment and employee productivity

c.   Checking medication

d.   Verify patient has received medication

3.   Not easily bypassed

How: 1.   Evaluate pros and cons of existing similar programs (i.e., Pharmacy 2000)

2.   National contract

3.   Mandatory at all sites

Who: CIO with input from front line pharmacists and technicians

When: April 1, 2002

3. **Enhance information and software applications used to support patient care processes. Success will be measured by improved patient care outcomes and efficiencies associated with clinical processes. Attention to this objective must be ongoing.**

Characteristics:
1. Provider profiling based on valid benchmarks and best practices (rather than VA averages) and subsequent education/intervention(s)

2. Integration of VA Practice Guideline queues into medication process applications (with an early emphasis on ordering processes)

3. Methods to quickly and easily share and access best practice data

4. Simplified and improved Computerized Patient Record System (CPRS) medication ordering processes

5. Accessible, state-of-the-art drug information systems

6. Ongoing processes to obtain and exploit technological advances as they become available in order to improve outcomes and gain efficiencies

How: Identify specific needs, develop and implement tactical and strategic plans to develop/enhance applications, develop training materials and assess impact of changes

Who: Expert panel(s) consisting of multidisciplinary clinical practitioners, information management authorities and national Prescription Benefit Management (PBM) staff

When: Begin during FY 2001 with expectations that identified enhancement will be implemented through out VA over the next 36 months.

Note 1: These enhancements should be released as developed rather than wait for all to be fully developed

Note 2: Expert panel(s) consisting of multidisciplinary clinical practitioners, information management authorities and national Prescription Benefit Management (PBM) staff should met at a minimum of every 24 months to assess clinical support systems and identify opportunities to improve

4. **Statement of need: Customer Service Center – Patient Satisfaction Needs**

Characteristics:
1. Human contact instead of voice menus

2. Take refill requests over phone/Internet

3. Continuously query patients as to their needs: PMI content, access, needs (question-naire/survey?)

4. Patient access coder to view their own pharmacy profile

5. CMOP National Customer Service Center

6. Customer Service Center would have access to all VA patient's data

7. Provide drug information 24/7 to patients, and VA staff

Who: National CMOP Manager

How: Details determined by a multi-disciplinary focus group

When: FY02 (COB)

5.   State of need: Develop and implement a comprehensive web-based administrative information system

Characteristics: 1.   Standard position descriptions for all pharmacy job titles

                    2.   Pharmacy staffing guidelines

                    3.   Policy, procedures and protocols for each facility

                    4.   User friendly search format

                    5.   Salary information

                    6.   Standardized report format(s)

                    7.   Standardization and centralization of PDM data

                         a.   Drug file entry

                         b.   Benchmarking availability

                         c.   Auto-update data entry

Who: CCO – PBM – Prime vendor – Drug manufacturer – Site information manager

How: (determined by the "who") 1.   Design standard format/nomenclature for above characteristics

                              2.   Assign responsibility(ies)

                              3.   Communications

                              4.   Establish best practices

When: Begin process in FY02 with completion by the end of FY02

Thursday, May 17, 2001

1.   2.3   Resident pay issue

      2.4   Special pay components for longevity, residency, etc.

      3.2   Revise and publish qualification standard

      4.2   Appoint residents for more than one year

      5.3   Develop tech PDs for 3-8 levels and Qual Standards

2.   2.1   Finalize and obtain approval to remove salary cap and special pay rates

      2.11   Lift cap on annual leave

      2.12   Require colas to be granted for special rates

      4.5   Develop internal VA training programs

      5.5   Certification for all techs

3.   2.2.1

  2.10 Pay adjustment when 10% variance exists

  4.1 Mentor program

  4.3 Increase number of residents

  5.1 Funds for technician competency based training

4. 1.4 Pharmacy handbook for pharmacy HR and fiscal rules

  4.4 Increase residents over three years

  6.3 Policy requiring pharmacy vacancies to be posted (intranet and internet)

  6.5 Pharmacist workforce tools

New Initiatives from Group 1:

1. Offer incentives for successful recruitment

1.1 Recruiting awards for current employees who successfully recruit a new employee (RPh, RN, etc.) in a target group. New employee must be retained for at least 6 months.

1.2 Incentive awards for new employees who perform well

1.3 Offer immediate access for new employees to their 401K

2. Inducements for longevity

  2.1 Ability to apply sick leave accrued to other funds or areas (401K, Retirement)

  2.2 Bonuses for longevity (e.g., years 5, 10, 15, etc.) graduated for years in service

3. Study and publish pros and cons of converting pharmacists to Title 38

New Initiatives from Group 2:

1. Ask the VISN pharmacy professional board to develop guidelines to be used by local facility for special advancement to be used consistently by all local facility within the VISN

2. Salary Survey – Eliminate the need to wait for a number of months, days or wait for "x" number of staff to leave before starting a new salary survey

New Initiatives from Group 3:

1. Comprehensive for unused benefits

  a. Flex credits

  b. Medical Savings account

  c. Combine AL/SL

2. Flex Scheduling

  a. Telecommunity

       b.   Virtual pharmacist

       c.   Four – ten hour weeks (others)

       d.   Part time

3.   Utilization of fee and contract resources

New Initiatives from Group 4:

1.   Discussed alternative working environments

       a.   Virtual pharmacy

       b.   Telemedicine

       c.   Telecommunte

       d.   Shared clinical services with other facilities including CBOC's

New Initiatives from Group 5:

1.   New hires are paid more than long-term employees (pay disparity)

2.   Employee rewards appreciation (flowers, tickets, turkeys, timely recognition)

3.   Incentive for not using (or low use of) sick leave

New Initiatives from Group 6:

1.   Pay dues to professional organizations

2.   Career ladders for pharmacy technicians

3.   National guidelines for boarding process for achievements (pharmacists and technicians)

4.   Mandate a maximum ration of employed pharmacists to contract pharmacists (similar to ratios in place for registered nurses)

5.   Retroactive forgiveness for college debt (ERSP) – expand to more than just newly hired pharmacists

6.   Allow agreements, if specific goals or achievements are met, compensation will follow

7.   Employee incentives

       a.   Allow "flexible spending accounts" pre-tax salary used for specific incentives (e.g., day care, health club   membership, etc.)

       b.   Improve/enforce shift differential flexibility

       c.   Remove cap on overtime salary

       d.   Mandate Saturday premium pay

New Initiatives from Group 7:

1.   Develop/Implement methodology for succession planning

2. Develop/Implement plan to maintain prescribing privileges

3. Public relations lobbyist to advocate work of VA pharmacist

New Initiatives from Group 8:

1. Tuition support to train pharmacists and technicians

2. Sharing agreement with DOD (Army at Fort Sam Houston) to train technicians

3. Bring back VACO "floater pharmacists"

New Initiatives from Group 9:

1. Rewrite leave policy to promote good attendance (convert/sell sick leave – apply annual leave to retirement)

2. Develop standard FTEE per pharmaceutical duty

New Initiatives from Group 10:

1. Remove bureaucratic requirements to conduct salary (i.e., turn over declined job offers, etc.)

2. Open up individual health care through the facility as part of salary compensation package *A true "Employee Health" such as public health service

3. Remove pay disparity between metropolitan service areas

Revisions from Group 2: Modify 6.5: Pharmacist workforce (efficiency/productivity tool) to address risk management issue and "report card system"

Revisions from Group 6: Modify 2.10: Develop policy for approval by policy board approval that would require facilities to authorize a salary adjustment whenever a 10% or greater variance from the local private sector is documented. Salary adjustment would equal % of the variance.

Revisions from Group 7: 2.11: Lift cap on annual leave: Investigate alternative leave plans (i.e., combining AL and SL)

- payment for unused SL

- increase starting leave as an incentive

- improving disability leave options

Revisions from Group 9: 2.4: Emphasis on retention

1.4: Make web-based and quarterly update

Revisions from Group 10: 2.10: Salary adjustment would equal 50% of the variance (change 50% to 90%)

Adverse Drug Effects

1. Standardized national definitions and processes

2. Easy to use standard format

3. Education/training to promote non-punitive anonymous environment

4. Feedback to originators timely review/analysis

5. Aggregation of data for review/analysis/action

6. Multiple reporting options

Human Factor Engineering

1-1 Apply to ADE system

1-2 Apply to order entry process

1-3 Non-formulary drug ordering

1-4 Filling process

1-5 User friendly management reports

1-1.1 Industry labeling
-similar package appearance
-similar nomenclature
-expand bar code content

1-1.2 Automated output end points
-drop buckets
-package strips
-Rx totes
-mail packaging

3-5 Work environment
-noise level
-air quality
-work space
-lighting
-equipment location

4-4 Refill prescriptions
-outpatient pending should be separate for tech view only so pharmacist does not have to deal with it
-customer service center
-slips (increase font/bold/contrast) and simplify (delete unneeded wording)

6-1 Circumvention of inpatient medication administration safeguards (BCMA)

3-3 Optimizing the provision and documentation of patient education

1-1 (8-3)   Pharmacy order enhancement

        -minimizing modes
        -lazy automation
        -local *vs* control

7-2   National drug file
        Consistent appearance and function (i.e., Drug entry; warning labels (CMOP wants you to enter what you
        want on your labels. Shouldn't warning labels be consistent all drug files?)

7-5   Discharge process
        -clear concise timely feedback
        -consistent unambiguous models
        -minimize modes
        -environment

8-4   Telephone system
        -uniform phone system (One VA)
        -headsets

9-5   Incomplete info/data on single screen (documentation)

2001 DVA Pharmacy Conference Poster Abstracts

May 16 - 19, 2001

Technology Extends Pharmacist

Karen Green, R.Ph., Overton Brooks Veteran's Administration Medical Center

The increasing likelihood of pharmacy personnel shortages will require creative solutions to fill the vacancies. Advances in outpatient drug dispensing technology have allowed pharmacy to extend to the remote point of care. The placement of an Automated Drug Dispensing System (ADDS) in a community based outpatient clinic has offered increased access to pharmacy services. The system is compatible with the computerized patient record system (CPRS) and physician order entry (POE) programs, allowing the entire prescription cycle to be electronically documented in the patient record. Use of state of the art technology, including barcode scanning with multiple checks and video-teleconferencing ability, which allows for "face-to-face" counseling between pharmacist and patient, ensures patient safety is not compromised. Significant cost savings are realized by reducing outsourced retail pharmacy purchases of first dose/one time prescriptions. Further cost savings result from improved formulary compliance. Implementation of the ADDS at the outpatient clinic has provided a pharmacy presence at the remote point of care without an associated increase in staffing. &

Improving the Reporting of Medication Errors

Maldonado Juan M., RPh, Pharm-D Candidate, Feliciano Marisol, RN

Medication errors in hospitals are one of the most important issues affecting patient care. Many lessons can be learned from these errors which can helps to establish measures to prevent future incidents. The goal of this project was to improve the medication errors reporting system in our institution.

The data obtained by the Medication Use Evaluation Subcommittee (MUES) of our institution revealed a total of thirty-seven (37) medication errors reported during an eight months period. A survey to detect possible under-reporting problems was conducted among the staff involved in the medication use process (pharmacy, nursing, and physicians). A total of one hundred thirty-two staff members completed the survey. The four main reasons detected that limited the under-reporting of medication errors were time consuming, fear to punitive action, fear to affecting another co-worker, and lack of knowledge of the procedure. Using these reasons as a starting point a new form, simpler, less time consuming and anonymous to report medication errors was designed. A pilot project using this form was performed during a three months trial. Using the new form we received a total of four hundred seventy-one (471) medication errors for a three months trial. This represented a significant increase in the reporting of medication errors.

We demonstrated that using a simpler, anonymous form improves the number of medication errors reported. This pilot served as a model for the development of a standard medication errors program at VISN-8. &

Barcode Medication Administration (BCMA): Quality Management and Medication Error Evaluation Following Implementation

Ginny L. Creasman, Pharm.D., Dorothy Dervin, R.N, Nance Widdowson, R.N., Martha Bacher, R.N.

Barcode Medication Administration (BCMA) is a national Veterans Healthcare Administration (VHA) initiative to improve patient safety and reduce medication errors that result from transcription and medication administration. The process is to scan the patient's bar-coded wristband, which opens the medication administration record or virtual do list (VDL), scan the bar-coded medications resulting in computer documentation of correct medication, dose and time, and finally, administering the medication to the patient. In April 2000, the Cincinnati VA Medical Center (VAMC) implemented BCMA on two medical/surgical units with the intention of evaluating the equipment, software and process before rolling out throughout the facility. As with any new process that requires the integration of new computer software, equipment, individuals from different healthcare professions, and multiple division it is essential to monitor for adverse events and errors during the implementation process and adjust accordingly. Therefore, a multidisciplinary team at the Cincinnati VAMC will evaluate medication errors, virtual due list errors, missed medication reports, variation reports and quality assurance monitors to determine three objectives. First, to determine if our process for implementation of BCMA software is a safe and effective approach for our facility. Second, to determine the impact of different pieces of equipment on the utilization of BCMA and the cause of medication errors. Third, a summary of process changes and perspective in implementation that occurred prior to implementation on additional units, specifically the intensive care units will be evaluated. Finally, an evaluation of number hours and types of staff necessary to maintain the program will be presented. ✜

Evaluation of a Clinical Pharmacy Specialist's Impact on Cost Avoidance and Patient Outcome in two Ambulatory Care Clinics in the VA Roseburg Healthcare System

Kenneth Har, Pharm.D., Clinical Pharmacy Specialist

Introduction

Clinical Pharmacy Specialist (CPS)-Directed Pharmacy Clinics were established in two ambulatory care areas to assist patient care, manage formulary drugs, and provide pharmacotherapy consult. In this pharmacy clinic, the CPS manages formulary requests, medication renews, telephone triages, and pharmacotherapy consults. CPS initiates or modifies patient care plan for hypertension (HTN), hypercholesterolemia, and diabetes. Full prescriptive privileges were granted to the CPS to function as a middle-level practitioner. This pharmacy clinic decreased primary care provider's encounters with their patients. Clinical outcomes were positive. Sixty-three percent of the patient's blood pressure met JNC-VI Recommen-

dation. Total cost avoidance of $36,983 was achieved in Second Quarter, FY 2000. This was an average savings of $12,298 per month ($147,572 annual savings). CPS provided excellent patient care in the ambulatory setting and also decreased costs in care.

Objectives

In December 1999, pharmacy clinics were established to reduce primary care provider (PCP) encounters and to evaluate Clinical Pharmacy Specialist's impact in patient care and cost savings. Clinic outcomes were to be measured by HTN outcome and cost avoidance in non-formulary drugs, provider encounters, pharmacotherapy consultation, and telephone triages.

Methods

The patient is given an appointment with the CPS for follow up on the above mentioned chronic diseases rather than with the primary care provider. Full prescriptive privileges were granted by way of a Scope of Practice. The CPS can write all formulary drugs prescriptions (except control II-V), and can order pertinent labs. All telephone triage phone calls are screened by CPS for medication renew/refill requests, ADR reports, minor health problems, and other pharmacy-related issues prior to PCP's intervention. CPS provides pharmacotherapy consults to physician, nurses, and other medical staff in the clinic. The data collected HTN outcome and on cost avoidance was captured through formulary management, provider encounter avoidance, telephone triage, and a pharmacotherapy consultation.

Result

HTN Management

- 38 patients were referred to Pharmacy Clinic for hypertension management.
- Total of 24 patients met JNC-VI Recommendations.

Cost Avoidance

- 282 telephone encounter avoided   (Total $ 5,640 saved)
- 333 provider encounter avoided   (Total $ 12,050 saved)
- 73 non-formulary drug requests managed   (Total $ 17,563 saved)
- 91 pharmacotherapy consult completed   (Total $ 2,610 saved)

Total of $ 36,983 cost avoidance achieved in first quarter and this is equivalence of $147,572 annual saving.

Conclusion

Adding a pharmacist-directed pharmacy clinic within the ambulatory care setting not only improves patient care and reduces PCP's workload. Cost avoidance and actual savings are additional financial rewards. With the CPS's assistance, the PCP can spend additional clinic time with more complicated patients and can see more patients. This enables additional patients to be cared for in the ambulatory care setting at the VA Roseburg Healthcare System. ❧

BCMA REAL TIME BACK UP SYSTEM

Naeem S. Mian R.Ph. BSPharmacy, VA New Jersey HCS

This system sends unit dose, IV, and medication log information to remote systems other than the sites production VISTA system. The program sends the data in a HL7 message format, utilizing VISTA HL7 Vs. 1.6 and can be sent to a PC workstation. As soon as the pharmacist verifies a unit dose or IV order, an HL7 ORM (Order Message) event trigger occurs. When a nurse enters an inpatient med in the BCMA medication log file, an HL7 ORM (Order Message) event trigger also occurs. The information is processed through Vista HL7 1.6 package and sent to the remote sites. Following activities are processed.

- Inpatient Order Verification.

- Inpatient Order Editing.

- Order's D/C'ed, Cancelled, Changed.

- Patient is Discharged

- Inpatient Medication Reinstated

- Medication Administration Log

Medication orders are deleted from the PC workstation database for the following

conditions:

1. Discontinued order (HL7 message trigger)

2. Patient no longer admitted (HL7 message trigger)

3. Order is renewed (HL7 message trigger)

4. Medication stop date/time has expired (mumps routines on PC workstation)

It is possible to set up multiple subscribers to these trigger events. Many PC workstations can receive the HL7 messages containing the necessary information required to print a MAR style report. Since it works through HL7 1.6 package, it does not slow the VISTA production system down.

We are using the TCP/IP link type to send messages to our PC workstations. We are using Cache NT for Windows as the operating system on the PC workstations. VISTA Kernel and HL7 application 1.6 are running on the PC workstations. The Cache NT, VA Kernel and HL7 1.6 run continuously in the background on the PC workstations. Users can use the PC for other purposes such as MS Office (Word, Excel, etc.), Production VISTA, Forum, CPRS, BCMA and any other applications.

An icon is displayed on the workstation desktop. By clicking the icon, the user can access the VISTA system on the PC workstation. The user will see the familiar VISTA login screen. After entering an access and verify code a menu will be displayed. Two reports are available. One allows the user to print a MAR

style report for a single ward. The other prints a MAR style report for all wards. The report goes to the default printer indicated on the Windows NT desktop.

1. BCMA lacked a Real Time Back Up System.

2. HL7 application was used to develop a Real Time MAR with Med Log

3. Up to second MAR is available to Nurses for Medication Administration in system down time.

   i. This eliminates the chances of missed medication

   ii. This eliminates the chances of over medication.

   iii. This means patient safety. ✒

Impact of Education in Clinical Performance by Primary Care Providers
Janin Monterrey, Pharm.D., Giselle Rivera, Pharm.D.

Suggestions to improve physician management of hypercholesterolemia have included educational programs and provision of the necessary information and skills to treat the problem. The Medical Advisory Panel (MAP) of VHA's Pharmacy Benefits Management Strategic Health Care Group has developed guidelines in the treatment of hyperlipidemia to assist practitioners in clinical decision-making, to standardize and improve the quality of patient care, and to promote cost-effective drug prescribing. A medication use evaluation (MUE) was performed to assess the compliance with these guidelines and the use of lipid-lowering agents in ambulatory patients seen by primary care providers at the San Juan Department of Veterans Affairs Medical Center.

During Part I, a total of 100 medical records were evaluated. Patients with the diagnosis of a lipid disorder followed by primary care providers were reviewed for appropriateness of drug use, documentation of lifestyle changes, and patient outcomes including achievement of low-density lipoprotein (LDL) cholesterol goals. Results of this evaluation showed poor compliance with established guidelines and attainment of LDL-cholesterol goals. These results were presented to the primary care staff after completion of this part of the study and copies of the MAP Hyperlipidemia Treatment Guidelines were distributed. In Part II of the study, indicators previously used were evaluated in patients who received lipid-lowering medications for the first time after this presentation.

A significant improvement in the management of hyperlipidemia was observed during Part II of this MUE. Baseline lipid profiles as well as baseline liver function tests were seen more commonly during Part II. Also, an improvement in establishing and documenting a desired LDL-goal, according to patient's risk factors for coronary heart disease, was noted in Part II. These results show that education to health care professionals has a positive impact in improvement performance activities including disease states management and implementation of published guidelines. ✒

Electronic Non-Formulary Medication Requests

Michael J. Evanko, Chief, Pharmacy Service

The Martinsburg VAMC, located in Martinsburg, WV, is a 550 bed facility comprised of general medicine, surgery, rehabilitation, psychiatric, nursing home and domiciliary beds. In addition, a large outpatient population receives services from the Martinsburg facility or six community based outpatient clinics.

Non-formulary medication requests had traditionally been handled as a paper request, requiring several authorizing signatures prior to dispensing. Several issues with the paper system had been discovered to be problematic. Some of the problems discovered were:

1. Paper requests sometimes required inordinate amounts of time to be acted on.

2. Paper requests occasionally disappeared.

3. Tracking of paper requests was often difficult.

4. Collating and reporting of data was often less that desired.

An attempt was initiated to find solutions to the observed problems with the paper system. Karen Sassaman, of our Clinical Informatics Team, was contacted and we discussed several options with an electronic format as the most promising. A template for a non-formulary medication request was constructed and placed as an ” option in our computer system. With this accomplished, the provider wishing to place a non-formulary medication request, accessed the consult, filled in the template and electronically signed the request. The request arrived at the pharmacy as an “ View Alert” and also printed on a designated printer. Pharmacy then answered the consult and designated the next approving official (Chief of Service) to receive an “ View alert” After the approving official had placed their comment, the consult returned to pharmacy for processing, again as a “ view Alert”

Objectives:

1. Improve turnaround times for processing Non-Formulary Medication Requests.
2. Improve patient and staff satisfaction with the Formulary system.
3. Improve tracking of pending requests.
4. Improve pharmacy communication of pending/approved/denied requests.
5. Facilitate comprehensive reports of non-formulary medication request results.

Positive results have been obtained in the few months since availability of the consult. Some consults have been completed in less than one hour, allowing the patient to receive their medication before leaving the facility or an alternate formulary item if appropriate. Tracking of pending consults has become a relatively easy process. Reporting data has become easily accessible and turnaround times can be monitored for performance improvement. ☙

Reducing Potential Discharge Medication Errors Using a Clinical Pharmacist Program for Transitioning to Primary Care

Kenneth A. Kellick, PharmD.,   VAWNYHS ; Nancy W. Fucile, Pharm.D.; VAWNYHS; Gregory Wojcik, VAWNYHS; Kathleen Doyle, R.Ph, CCP, VAWNYHS

Discharge counseling is a common role for VA pharmacists. A recent survey at the VA Western NY Healthcare System–Buffalo facility has demonstrated that discharging providers often fail to provide prescriptions for medically necessary supplies or continuing medications. Acute issues are appropriately managed, but upon discharge patients are often sent home with the inability to refill prescriptions that were cancelled upon admission or confusion about what medications they should take chronically. These incidents may lead to medication misadventures due to omissions, duplicative drug therapy, or drug interactions.

In order to prevent some of these incidents a new service was developed by our Primary Care Pharmacists to properly transition patients from inpatient to outpatient care. Using the VA View Alert system, Primary Care Clinical Pharmacists are notified of an impending patient discharge by inpatient pharmacists who have done an interview. Outpatient Pharmacists also provide discharge medication counseling on available prescriptions written by the discharging provider.

To transition patient from inpatient to chronic outpatient care the Primary Care Clinical Pharmacists review the CPRS discharge note, compare the medications and supplies provided at discharge with those necessary to complete the outpatient treatment plan. After discharge it is their responsibility to contact the patient and provide appropriate counseling and needed prescription renewals to transition the patient into Primary Care.

As the program began in 2000, a total of 30% of patients were discharged from the medical center with a medication profile deemed incomplete and subject to medication misadventures. All of these patients required substantial intervention by the Primary Care Clinical Pharmacist to prevent these misadventures from occurring. As of 4th Qtr 2000 we have decreased these potential medication errors to 7%. With the development of this "Post Discharge Transitioning to Primary Care" program, while some interventions are still necessary we have provided process improvement, bridged a necessary gap and are providing quality care for our veterans. ೞ

Data Management after integration of an entire VISN – Innovations in using VISTA Data

Kenneth A. Kellick,PharmD., VAWNYHS; George Knight, VISN-2 Office-Syracuse NY

In July 2001, VISN-2 completed integrated all facilities into one VISTA database. Tracking certain facility data using core options became impossible. Drug Costs Reports , Adverse Reaction Allergy Tracking and Prescription Data reports appeared as if all activities were occurring in the parent database, the Buffalo facility. To meet the demands of data management we were forced to develop innovative reporting techniques.

To track Drug Costs by parent facility and individual division an indexing field (Site Group) was added to the Outpatient Site file. Each of the divisions/ CBOCs in this file (there are over 30) was assigned a three letter code relating to their parent facility. Customized Fileman reports from the Drug Cost file were then developed to provide the desired utilization data by parent facility.

To adequately track and report on ADRs by facility, a customized Fileman report was written from the Patient Allergy File (120.8). Since the ART options do not include a Divisional prompt we were forced to use the New Person File, Division (Field #16) Multiple as an indexing field. With this data we can once again generate a report of Allergies and Adverse reactions by facility

To track groups of drugs (such as COX-2s) by facility we have added an indexing field called Pharmaceutical Classification to the Drug File (File 50). We insert a code into all drugs from a given drug class or group and sort on that indexing field. This allow us to only sort for those drugs where statistics are desired, rather than all drugs in a related VA drug class. These Prescription File reports can be sorted by Outpatient Division or Site Group.

Core reporting options have not adequately dealt with integration challenges. If integrations are to succeed development of adequate reporting capabilities are essential. We believe we have provided some solutions to share with other. ∞

VISN 20 BCMA After-Hours Remote Prescription Order Verification Program

Rod O'Gorman, PharmD, VA Puget Sound

The recently implemented inpatient Bar Code Medication Administration (BCMA) program and increased emphasis on patient safety have highlighted the need for immediate pharmacist review and verification of new inpatient medication orders. The lack of 24/7-pharmacist coverage has been identified nationally as a major BCMA impediment and patient safety issue. VISN 20 Leadership recognize the importance of this issue and concluded that the best approach is to have 24-hour staffed tertiary care sites within the VISN provide after-hours review and verification for non-24 hour sites during their hours of pharmacy

closure. VA Puget Sound was selected to pilot a program with Seattle division pharmacy assigned to finish after-hours orders for Spokane and Walla Walla. The Seattle division has previous experience reviewing remote orders for the American Lake division following the two-site integration into VA Puget Sound. A VISN workgroup including key individuals from Nursing, Pharmacy, AFGE, QI and IRM convened to develop and implement the pilot program. This workgroup has been meeting since September 2000 to address program components and organize the pilot implementation. Multiple program components have been identified and addressed. Components addressed include policy and procedure development, workload measurement, staffing requirements, pharmacist scope of practice, remote VISTA and GUI access, staff communication, quality assurance checks, and reimbursement determination. A computer routine was developed to electronically notify sites of pending CPRS orders immediately and provide workload information to help determine staffing levels needed on evenings and nights at one of the tertiary care sites. The other tertiary care site is using bingo board software to find and verify orders. It relies on scheduled periodic review for pending orders. These two methods of verification will be evaluated. To date, each tertiary care center has successfully verified BCMA orders at another facility. The remainder of the VISN sites without 24/7 coverage are expected to be incorporated into this program in 3-6 months. Quality measures have been developed to ensure remote orders are reviewed in an accurate and timely manner, and that communication of appropriate information to providers, nursing staff and pharmacists occurs. Implementation experiences and lessons learned will be shared. ❧

Pharmacy Budget Risk Model

George Knight, R.Ph., VA Healthcare Network Upstate New York at Syracuse

Issue Statement

VISN-2 Pharmacy, and the Diagnostic & Therapeutic Care Line, are collaboratively working with the clinical care lines to reduce projected drug expenditures by $5,000,000. This budget model successfully reaches back to the provider level, requiring a strong focus on utilization patterns, in order to proactively reduce our supply cost per unique veteran, and allow us to operate within our budget allocation.

Action Plan Implemented

Since altering utilization and prescribing patterns is a cross care line issue, we proposed a shared risk model amongst clinical care lines, to support cost overruns resulting from inequitable provider prescribing patterns across VISN 2. The proposed risk model spreads the financial risk across clinical care lines based upon a weighted percentage of total Care Line drug expenditures. Pharmacy agreed to invest approximately $1,000,000 off the top in salaries in FY01, to hire 10 additional clinical pharmacists, to help meet the demands of our growing Primary Care Program. Pharmacy provides ongoing feedback on utilization and expenditures to keep Care Lines abreast of their status. This model assures that the shared risk funds will be retained and set aside, by the respective care lines, to cover the pharmaceutical shortfalls anticipated should utilization be unaffected by this effort.

Of primary significance is that during the first four months of the fiscal year, the VISN-wide average cost per equivalent fill has only increased by 7 cents, or 0.5%. During the same timeframe in FY00, the average cost grew by 4.3%. The Risk Model success realized thus far is due primarily to the heightened awareness of care lines and providers to the economic effects of their prescribing habits, as well as the availability of provider profiling in areas of high cost. We have successfully recruited 5 of the 10 clinical pharmacists and continue recruitment efforts for 5 more. Our model includes active collaboration between Pharmacists and Providers using partnership and education initiatives to ensure proper utilization of pharmaceuticals. We fully expect to see further, significant savings, as clinical pharmacy involvement develops during the remaining 8 months of the year. ∞

Reducing Adverse Events Associated with Warfarin Therapy

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When this medical center began its collaboration project with the Institute for Healthcare Improvement (IHI), an interdisciplinary team evaluated the adverse events seen at this facility and found that warfarin was associated with the majority of events for both inpatient and outpatient veterans. The group felt that interventions should impact various areas, as events noted as an outpatient were often related to prescribing practices of the inpatient. To impact prescribing, the literature was reviewed for possible warfarin initiation dosing algorithms. The chosen algorithm was introduced to house staff for a trial period and review. To impact follow-up, clinical pharmacists were integrated into a crucial role in the transition between inpatient and outpatient care of the anticoagulated patient. In addition, the outpatient anticoagulation clinics were reorganized and integrated. Parameters were established to monitor the efficacy of interventions made in both settings, and the project was expanded to more areas as success was noted. A decrease in the percentage of first outpatient INRs greater than 5.0 fell from 20% to 15.5 %, as well as a decrease in the percentage of first outpatient INRs that are supratherapeutic from 40% to 30%. The percentage of patients seen within two weeks of discharge increased from 62% to 82%. A Medication Use Evaluation review was initiated and results demonstrated that follow-up outpatient INRs were within the therapeutic range when the inpatient algorithm was utilized and time to first follow-up INR after discharge was approximately one week. Implementing small changes once problems and potential solutions are identified, as suggested by IHI, was successful with this project. This approach will be used in future projects with similar goals. ∞